IX. On Some New and Little-known Neotropical Lycaenidae. By Hamilton H, Druce, F.L.S., etc.

[Read June 2nd, 1909.]

## PLATE XI.

THE following short paper contains an account of some new and little-known forms of butterflies belonging to the *Lycaenidae*, which have been placed in my hands for examination by Mr. H. J. Adams, and which were obtained by his collectors, Messrs. Watkins and Tomlinson, in the years 1902, 1903, 1904, in Peru.

To these I have added a description of a small but very distinct species from the Argentine, and some remarks on several described forms.

## Thecla melidor, sp. nov. (Plate XI, fig. 4.)

3. Allied to T. atys, Cr.\* Upper-side with brands as in that species; ground colour of wings bluer.

Under-side. Both wings irrorated with green at the base, no dark band closing the cell of the fore-wing. A long red streak on costa of hind-wing extending almost half way to the apex, in place of the red basal spot of *T. atys*. A red spot beyond the pale spot below the red streak, which spot is not found in *T. atys*; a long red streak running down the inside of the submedian nervure—this is short in *T. atys*. The ground colour is greyer.

The abdomen is vermilion below and blackish above.

Expanse, 21 inch.

Hab. RIO COLORADO, Peru, 2,500 ft. (Watkins and Tomlinson.)

Type, Mus. Adams. Captured in August.

Allied also to T. bacis, Godm. and Salv., † and T. vulnerata, Staud. ‡

\* Papilio atys, Cr., Pap. Exot. iii, t. 259, figs. E, F (1782). † Thecla bacis, G. and S., B.C.A., Lep. Rhop., vol. ii, p. 21, Pl.

XLIX, figs. 20-22 (1887).

‡ Thecla bacis, v. vulnerata, Staud., Exot. Schmett., p. 285, Pl.

TRANS. ENT. SOC. LOND. 1909.—PART III. (SEPT.)

## Theela adamsi, sp. nov. (Plate XI, fig. 2.)

3. Upper-side. Both wings shining bluish-green, shading to purple towards apex of fore-wing. Costa, apex and outer-margin of fore-wing narrowly black; apex and outer-margin of hind-wing narrowly black, abdominal margin grey. Anal angle rather broadly black with a narrow white line running from the abdominal margin just below the lobe to the lower median nervule. Cilia of fore-wing black, of hind-wing white, tipped with black. Tails black tipped with white.

Under-side. Ground colour of both wings chocolate-brown, bluish on basal and discal areas of fore-wing and pale brown along inner margin of same wing, both wings crossed by three irregular pale blue lines, the innermost of which is most clearly defined on both wings. On the hind-wing these lines are angled towards the abdominal margin. In addition to these lines there is a short blue line closing the cell of the fore-wing and a longer blue line just below the costa rather before the middle. Cilia of fore-wing brown, of hind-wing white, tipped with brown. An anteciliary blue line from the apex where it is faint, to the abdominal margin below the lobe, which is deep black. Thorax green above, brown below. Abdomen brown on both surfaces. Legs brown, spotted with white.

Expanse, 2 inch.

Hab. Pichis Road, Peru, 3,000 ft. (Watkins and Tomlinson).

Type, Mus. Adams.

This insect is somewhat like *T. havila*, Hew.,\* but is without the large double brand which is so well marked a character of that species, and on the under-side has a blue mark closing the cell, and differently arranged lines.

Thecla ematheon. (Plate XI, fig. 5.)

Papilio ematheon, Cr., Pap. Ex. ii, t. 163, F.G. (1779).

Hab. Perené River, Peru, 2,000 ft. (Watkins and Tomlinson).

This beautiful and distinct species has never been recorded since it was described and figured by Cramer, now more than a hundred years ago.

Mr. Adams' specimen, which undoubtedly represents

\* Thecla havila, Hew., Ill. Diur. Lep. Lyc., p. 76, Pl. XXX, figs. 23, 24 (1865). J. The Godman collection contains a Q which has broader black margins and duller blue areas on the upper-side than the J.

Cramer's insect, has the discal areas of the fore-wing above, adjoining the large black patch, suffused with purple when seen in some lights.

Cramer records it from Surinam, which, if correct, seems

to point to a very extended range.

Hewitson wrote that he was hoping to receive it from

Cayenne, but he never obtained a specimen.

It is perhaps allied to *T. undulata*, Hew.,\* and *T. busa*, G. and S.,† but the anal area is less pronounced, and the tail is less spatulate than in either of these species.

Theela gibberosa tomlinsoni. (Plate XI, fig. 3.)

Theela gibberosa, Hew. Ill. Diur. Lep. Lyc., p. 85, Pl. XXXIII, figs. 48, 49 (1867).

- 3. Upper-side differs from the typical form by the whole of the fore-wing being suffused with brilliant shining blue and the hindwing with grey blue, thus obliterating the white areas. Under-side as typical form.
  - Q. Both surfaces as typical form.

Hab. CHANCHAMAYO, Peru, and RIO COLORADO, Peru, 2,500 ft. (Watkins and Tomlinson). Mus. Adams. Captured in September.

T. gibberosa has the linear patch on the fore-wing below as described in T. numen, P. Z. S., 1907, p. 574.

Theela amatista, Dognin.

Thecla amatista, Dognin, Anns. Soc. Ent. Belg., 1895, p. 106.

Theela candor, H. H. Druce, P. Z. S., 1907, p. 578, Pl. XXXIII, fig. 1.

Hab. Ecuador, Peru.

On a recent visit to Paris M. Dognin has kindly shown me the types of the three *Theclas* described by him, and I find that two of them are identical with forms recently described and figured by myself. The third, *T. faga*, is a small brown insect which seems to me better placed in the genus *Scolitantides*. We possess specimens of it from

<sup>\*</sup> Thecla undulata, Hew., Ill. Diur. Lep. Lyc., p. 81, t. 32, figs. 41, 42 (1867).

<sup>†</sup> Thecla busa, G. and S., B.C.A., Lep. Rhop., vol. ii, p. 26, Pl. LI, figs. 1, 2 (1887).

Cuzco, Peru, and La Paz, Bolivia. It has remarkably long palpi, especially in the  $\mathcal{Z}$ , which are thickly clothed with hairs, as noted by M. Dognin.

Theela alatus, H. H. Druce. (Plate XI, fig. 13.)
Theela alatus, H. H. Druce, P. Z. S., 1907, p. 579.

Hab. PERU.

I have figured the type which is contained in Mr. Godman's collection. Although allied to *T. culminicola*, Staud., it is distinguished by the paler blue areas, the broader brown margins and the plain cilia. This insect inhabits very high altitudes.

Thecla culminicola, Staud.

Thecla culminicola, Staud. Iris, vii, Pl. II, fig. 6, 1894.

Hab. SAN MATEO, Peru.

TYPE, Mus. Adams.

Mr. Adams' specimen, a 3 with a small pale brand at the end of the cell of the fore-wing above, agrees well with Staudinger's figure, and has very clearly defined black and white chequered cilia to both wings on both surfaces.

Thecla paphlagon, Feld. (Plate XI, fig. 1.)

Pscudolycoena paphlagon, Feld., Reis., Nov. Lep., p. 249, Pl. XXXI, figs. 10-11 (1865).

Hab. Chanchamayo, Peru, 2,000-7,500 ft.

Type, Mus. Adams.

The figured is larger, and of a darker shade of blue than the described by me in P. Z. S., 1907, p. 594, and has the black hairs along the submedian nervure of hindwing above, much as in *Thecla ochus*, G. and S.

Theela piplea, G. and S.

Thecla piplea, G. and S., P. Z. S., 1896, p. 516.
Thecla subobscura, Lathy, Abstr. P. Z. S., 1904, No. 5, p. 19,
P. Z. S., 1904, vol. i, p. 452.

Hab. St. Vincent. Dominica. W. Indies.

Mr. Lathy has kindly lent me the type of his *T. sub-obscura*, which I find does not differ in any way from the previously described *T. piplea*.

Thecla purpurantes. (Plate XI, fig. 12.)

Thecla purpurantes, H. H. Druce, P. Z. S., 1907, p. 597, Pl. XXXV, fig. 7 3.

Q. Upper-side paler than &, blue areas slightly less extensive and more cerulean in hue. Under-side as 3, but paler.

Hab. SAN REMON, Peru, 3,000 ft. (Watkins and Tomlinson.)

Type, Mus. Adams. Captured in August.

Thecla crepundia, sp. nov. (Plate XI, fig. 6.)

5. Upper-side dull olivaceous-brown, the basal areas of both wings dull indigo-blue which appears shining when held at an angle. Cilia of both wings brown, whitish towards apex of hindwing. Under-side: fore-wing olivaceous-brown, paler along inner margin, broadly tipped with creamy-white crossed by brown nervules; basal area shining greyish-blue. Shoulders very narrowly bright red. Hind-wing creamy-white, basal and anal areas clouded with brownish; all the veins distinctly dark brown. A large red basal spot. Thorax and abdomen black above, white below. Legs black. Palpi white, terminal joint black. Antennae black, annulated with white.

Expanse, 1 m.

Hab. RIO COLORADO, Peru, 2,500 ft. (Watkins and Tomlinson).

Type, Mus. Adams.

This curious little insect is allied to Theela miranda, G. and S.,\* and Theela schausi, G. and S., and belongs to a group that is very little known. Besides other differences it has only one red basal spot on the under-surface, and that on the hind-wing. The figure is drawn 1½ times natural size to better show the details of coloration.

Thecla phrosine, sp. nov. (Plate XI, fig. 7.)

Q. Upper-side dull smoky-brown. Cilia of fore-wing pale brown, of hind-wing pure white, tipped with grey at the anal angle. Under-

<sup>\*</sup> Thecla miranda, G. and S., B.C.A., Lep. Rhop., vol. ii, p. 99 (1887).† Thecla schausi, ibid., p. 98, Pl. LVIII, figs. 22, 23 (1887).

side; both wings pure white, discal area of fore-wing very faintly bluish-grey. Fore-wing with an ultra-median band composed of rich brown dots, commencing on the costa and reaching below the first median nervule. Hind-wing with a central circular band composed of larger rich brown blotches from the costa to the inner margin. A submarginal row of brown dots. A clearly defined, black, anteciliary line common to both wings. Cilia of both wings pure white. Thorax and abdomen olivaceous-brown above, pure white below. Palpi white, terminal joint black. Legs white with black spots. Antennae black, annulated with white.

Expanse, 1 inch.

Hab. Chanchamayo, Peru, 2,000-7,500 feet.

Type, Mus. Adams.

Not closely allied to any with which I am acquainted, but possibly belonging to the group containing *Thecla aura*, G. and S.\* The figure is drawn 1½ times natural size.

## Theela vesper, sp. nov. (Plate XI, fig. 8.)

3. Upper-side. Both wings uniform rich shining blue with even deep black borders and a black spot at the end of the cell of the fore-wing adjoining the costal border. Cilia of both wings black; lobe orange with some white hairs above and below. A faint white anteciliary line between the lobe and the lower median nervure. Under-side ashen-grey. Fore-wing with a clearly defined dark brown, nearly straight, ultra-median line bordered outwardly with a fine white line. Some submarginal shades between the median nervules. Hind-wing with a rich brown, broader, much broken line, reaching from the costa, near the apex, to the abdominal margin, where it is angled, outwardly bordered with a white line. A large reddish-orange patch at the anal angle and another near the margin, between the tails, containing a black pupil. Some whitish submarginal shades and a fine anteciliary black line. Cilia of fore-wing brown; of hind-wing whitish, tipped with grey. Tails black, tipped with pure white.

Expanse, 11 inch.

Hab. Chanchamayo, Peru, 2,000-7,500 feet.

Type, Mus. Adams.

Not nearly allied to any species with which I am

\* Thecla aura, G. and S., B.C.A., Lep. Rhop., vol. ii, p. 60, Pl. LV, figs. 21, 22 (1887).

acquainted, but perhaps belonging to the same group as *T. thama*, Hew.\*

Theela joya, Dognin.

Thecla joya, Dognin, Anns. Soc. Ent. Belg., 1895, p. 106. Thecla callao, H. H. Druce, P. Z. S., 1907, p. 611, Pl. XXXVI, fig. 11.

Hab. ECUADOR, PERU.

Thecla gamma, sp. nov. (Plate XI, fig. 9.)

Upper-side. Both wings dull greyish-brown; inner-marginal area of fore-wing and basal, discal and anal areas of hind-wing pale dull greyish-blue. Cilia of both wings reddish-orange tipped with brown and chequered with white at the apex of the fore-wing. Under-side, ground colour brown. Fore-wing; a white mark closing the cell; apical and outer-marginal areas laved with white and speckled with dark red scales as also is the costa near the base. Hind-wing with a broad central pure white band commencing on the costa and reaching the inner margin just above the lobe where it is broken and less clearly defined. A pure white  $\gamma$ -shaped marking near the base surrounded by dark red. The outer-marginal half of the wing as well as the costa is thickly speckled with red scales. A red anteciliary line common to both wings. Cilia brown. Thorax and abdomen blue above, white below.

Expanse, ‡ inch.

Hab. Tucuman, Argentine Republic (P. Girard).

Type, Mus. Druce.

Appears to be nearest to T. sanguinalis, Burm.,† of which we have a good series from Paraguay, but is quite distinct. I am unable to state positively the sex of the specimen described, but believe it to be a  $\mathfrak{P}$ . It has no trace of any differently placed scales at the end of the cell of the fore-wing. The figure is drawn  $1\frac{1}{2}$  times natural size.

Thecla heodes, sp. nov. (Plate XI, fig. 10 3, 11 \, 2.)

J. Upper-side. Fore-wing orange with the costa, apex and outer-margin rather narrowly brown; the inner-margin narrowly,

<sup>\*</sup> Thecla thama, Hew., Ill. Diur. Lep., p. 189, Pl. LXXV, figs. 591, 592 (1877).

<sup>†</sup> Thecla sanguinalis, Burm., Lep. Répub. Argent, Pl. VIII, fig. 12 (1879).

and the basal area broadly, suffused, with greyish-white scales. Hind-wing brown; the outer-marginal area orange and the inner-marginal and basal areas suffused with greyish-white. An outer-marginal series of pale-blue patches placed on the nervules, which are brown. Cilia of both wings pale-brown. Under-side pale brown sprinkled with white scales; fore-wing with the discal area orange and a short band placed beyond the cell, composed of three confluent dark brown spots much as in T. quadrimaculata, Hew., but nearer to the apex. Hind-wing with an ultra-median linear dark brown irregular band commencing on the costa and reaching to the inner margin. Cilia grey.

Q. Upper-side brown with the median interspaces of the discal area brownish-orange. Hind-wing brown with the inner-marginal areas slightly dusted with bluish-white scales and a submarginal row of rather large dark brown spots inwardly crowned with orange. Under-side paler than in 3, the short band on fore-wing placed lower down and the band on the hind-wing almost obsolete. Cilia, thorax and abdomen concolorus with wings.

Expanse, of  $1\frac{1}{5}$  inch.  $2 1\frac{3}{10}$  inch.

Hab. & Uramarca,  $\updownarrow$  San Marcas, Department of Ancachs, N. Peru.

Types, Mus. Adams.

Differs from *T. quadrimaculata*, Hew.,\* and its allies by the 3 wanting the prominent patch of dark scales at the end of the cell of the fore-wing, and by the whitish shining basal areas on the upper-side.

Although the under-sides of the two specimens described present considerable differences, I think there is no doubt

that they are sexes of one species.

\* Thecla quadrimaculata, Hew., Ent. Mo. Mag., 1874, p. 106; Ill. Diur. Lep., p. 208, figs. 695, 696 (1877).

EXPLANATION OF PLATE XI.

[See Explanation facing the Plate.]